



## Westlands Water District

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December 6, 1996

Mr. Rick Woodard  
Water Quality Program Manager  
CALFED Bay-Delta Program  
1416 Ninth Street, Suite 1155  
Sacramento, CA 95814

Dear Rick:

Subject: Comments on 11/20/96 CALFED Water Quality Workshop Materials

This is in follow up to the information and data distributed at the November 20, 1996, Joint Water Quality Technical Work Group Meeting and the request for written comments. These comments are arranged topically (by handout) as follows:

### **PARAMETERS OF CONCERN**

The District believes the following substances should be considered by the Ecosystem Water Quality Work Group (Group) as parameters of concern. For each substance we are providing a very brief explanation of our reason for the proposal. In addition we would like to be included in any Group discussions on these items.

#### **Pesticides**

Simazine (also known by the trade name Princep): We understand Simazine was considered by the Group for inclusion because it is widely detected, but that it was dropped because detected concentrations are less than the LC 50's for aquatic species. While we understand and agree with the basic logic, we believe the Group's consideration is incomplete. Simazine is also labeled and used to control aquatic weeds, including algae and pond weed. It is used for this purpose in non-potable ponds and reservoirs, canal systems, swimming pools, etc. Dosages for this purpose are low, compared to its application rates for weed control, and its effectiveness quite high given moderate-to-long detention times and adequate mixing.

Our concern is with the potential impact of Simazine on aquatic plants which are an integral part of the ecosystem and have, in many instances, declined significantly in and upstream of the Delta for undetermined reasons. While we understand this situation may not have been considered to date, we feel it warrants thorough evaluation and inclusion on the list until such time this can be scientifically ruled out.

## **Other**

**Chlorine:** We understand the Group may not have fully considered chlorine in its deliberations. Chlorine is acutely toxic to many aquatic organisms at very low concentrations and is widely used as a disinfectant in wastewater treatment processes. According to the December 1990 Sanitary Survey of the State Water Project, numerous municipal and industrial waste water treatment plants in and tributary to the Delta were discharging effluent in select cases at rates of over 100 cfs, with chlorine levels that could be of concern at certain times of the year, e.g., while masses of striped bass eggs are floating downstream. The District believes the Group should reconsider this matter.

## **Bacteria and Viruses**

Recent efforts by UCD to evaluate Delta smelt and the captive broodstock program for winter-run salmon at Bodega Marine Laboratory have experienced significant, in some cases near total, mortality as a result of various water-borne diseases in Delta and tributary waters. In some cases these diseases were not previously recognized because these species had never been held in controlled, observable environments for such long periods.

The District believes bacteria and viruses should be reconsidered by the Group and left on the list until such time as they can be conclusively ruled out as a parameter of concern.

## **Boat Exhaust**

This area of concern is one which we do not believe was even considered by the Group. Recreational boating in and tributary to the Delta has increased greatly in the last 10-15 years. Data provided by DWR indicates the quantity of fuel consumed by boaters in the Delta could be in excess of 1,000,000 gallons per year. Of significance is that virtually all boats have exhaust systems venting directly into the water below the water line of the boat. Also, boats, including newer models, have less stringent emission control requirements and there is no program for periodic testing as for automobiles. Finally, the engine loading on boats is very different than for autos such that boat engines consume far more fuel and generate higher emission levels per unit of operation than do automobiles. Therefore, emission levels per gallon of fuel burned by boats tend to be greater than for automobiles.

The impacts of internal combustion engine emissions into the atmosphere are widely recognized. However, the effects on aquatic species of such emissions in water have not been widely studied in general and never evaluated in the Bay/Delta system. Given the byproducts of gasoline emission can be toxic and carcinogenic, this parameter should be added to the list until such time as detailed evaluation can eliminate it.

## **RANKING OF WATER QUALITY ACTIONS**

The District is concerned with the emphasis on San Joaquin River and the general composition of the list in its current form. We are also concerned with the "top ten" actions initially

targeted for recommendation to CALFED. Our comments follow those expressed during the meeting by Lance Johnson. In particular these are:

### **General**

1. Action item rankings can vary significantly by region. The listing should be restructured regionally as Sacramento Valley, in-Delta, east bay, north bay, south bay, San Joaquin Valley east side, and export area, in many instances.
2. Prioritization as Low, Moderate, or High can be affected by the time frame in which an action is contemplated. An example is an action that might have a low priority if the implementation time frame were 1-3 years but a moderate or high priority if the time frame were 5-10 years. The District recommends the list be restructured and recirculated with three prioritization time frames: 1-2 years, 3-5 years, 5-10 years, and 10-24 (year 2020) years.
3. The Action list and prioritization does not explicitly address technical or financial feasibility or probability of success. These factors should be included in a reassessment of the list. The District suggests that technical feasibility and probability of success be ranked numerically, say 1-5, and financial feasibility include some degree of cost analysis leading to a unit cost for the action to enable comparison and feasibility assessment.

### **Descriptions of Actions**

The descriptions of proposed actions are in some cases vague, incomplete, inaccurate, overly broad and inclusive of multiple actions. This makes assessment and prioritization difficult at best and in many cases impossible. It is our understanding that CALFED is in the process of compiling more concise descriptions of the proposed actions. It is the District's position that such descriptions, modified as delineated above should be completed and circulated to the committees for reevaluation of all rankings prior to finalization of this process.

### **Other**

It is the District's understanding that only a very few members of the Agricultural Water Quality Workgroup were available to participate in the composite ranking process due to scheduling conflicts. Given the importance of full and complete input from this group and our concerns expressed above, the District requests this group be reconvened and their input obtained upon CALFED's completion of the changes delineated above.

Overall the District feels the outcome of this effort is sufficiently important to warrant modifying the list, taking the extra steps described above and recirculating for additional review and reconsideration.

## **RANGES FOR PARAMETERS OF CONCERN**

The District has significant concern with certain areas of this document.

### **General**

1. The title states "ranges," but the document frequently lists specific, singular, numerical values. In some instances such a value may be appropriate, such as a threshold water quality concentration for chronic or acute aquatic toxicology. In other instances, such as dissolved oxygen levels, a singular value may be desirable as a "target" although some lower value may be acceptable, e.g., dissolved oxygen levels of 6,000 ug/l from Turner Cut to Stockton on the San Joaquin River is desirable but 4,000 ug/l is acceptable (although not necessarily consistently attainable) for adult salmon passage.
2. Even once the above issue is dealt with, the District is concerned by the language in many of the footnotes linked to the "ranges" in the list. In many instances these footnotes state "shall not be greater than." This is an absolute term and does not express the flexibility of a "range." The District requests such absolute language be removed unless it only applies, and is so noted, to the lower limits of acceptable ranges to be determined.

### **Temperature Standards**

The District has serious issues with the temperature standards proposed for the Sacramento and San Joaquin Rivers. The document proposes a standard of <56°F for the river reach from Keswick Dam to Hamilton City. The 1993 Winter Run Salmon Biological Opinion (1993 BO) issued by National Marine Fisheries Service for operation of the Central Valley Project contains temperature control criteria between Keswick and Red Bluff Diversion Dam--many miles upstream of Hamilton City. Years of actual operating experience has clearly demonstrated that temperature on the upper river is principally a function of hydrology and climate.

It has also become clear that Shasta Dam and Reservoir operations can affect such temperature only to a fairly limited degree. This is a situation that will improve, but only to a limited degree, upon completion of the Shasta temperature control device. Since 1992, it has been demonstrated time and again that it is impossible to consistently achieve, much less maintain, <56 ° even at RBDD. Every year, the National Marine Fisheries Service has recommenced that the temperature control point be moved upstream from RBDD to avoid depleting the cold water pool in Shasta Reservoir. The proposed criteria is unattainable and should be deleted, and the 1993 BO should be cited as the appropriate level of temperature control on the upper Sacramento River.

Temperature standards farther downstream on the Sacramento River are even farther beyond the control of the state and federal water projects than that described above. Again, temperature in the lower river, such as I Street Bridge and Freeport are a function of climate and natural hydrology. Any such temperature standards are completely beyond the ability of the projects to control or regulate are therefore arbitrary and capricious and should be eliminated in their entirety.

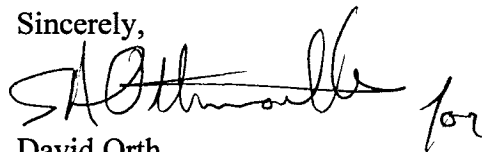
Mr. Rick Woodard  
Page 5  
December 6, 1996

For the San Joaquin River temperature standard at Vernalis we restate our comments above. The State Water Resources Control Board has determined in the past that it is unreasonable to try to control temperature in the lower San Joaquin River.

The temperature differential standard for the area west of the Antioch Bridge, providing for a maximum allowable differential of discharge waters of  $<5^{\circ}\text{C}$  ( $11^{\circ}\text{F}$ ) may be inadequate. Several aquatic species, such as Delta and long fin smelt, are extremely sensitive to thermal shock as demonstrated in studies at UCD. The District recommends that an allowable differential be set at  $<3^{\circ}\text{C}$  ( $5.4^{\circ}\text{F}$ ) to provide adequate protection of sensitive native species at critical life stages.

This concludes the District's comments on the materials provided at the November 20 Water Quality Workshop. We do, however, request another comment period upon revision(s) to the various documents as described above.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Orth", followed by a small "for" written vertically.

David Orth  
General Manager

cc: Dan Nelson, SLDMWA  
Jason Peltier, CVPWA